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EXAMINER

PIERRE, MYRIAM

ART UNIT PAPER NUMBER

2654

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/973,038

Applicant(s)

ONO ET AL.

Examiner

Myriam Pierre

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/18/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION**Specification**

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Speech or Text recognition updatable system.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The disclosure and claims are objected to because the term "Voice Recognition" is misused for what is most recently called "**Speech Recognition**" in the speech signal processing art. While "voice recognition" and "speech recognition" were both once used interchangeably to refer to spoken word recognition, currently, these two terms are distinguished. The term "**voice** recognition" now denotes identification of

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who is speaking (class 704/246), while **"speech recognition"** (or **"word recognition"**) denotes identification of **what** is being said (class 704/251). Thus, appropriate correction to the proper terms of art is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ittycheriah (6,185,530) in further view of Bocchieri et al. (5,329,608)

As to claim 1, Bocchieri teaches

a **verbal input providing section** providing a verbal input (**Fig. 5, step 102101**);

a **memory** (**Fig. 1, step 23**) storing a number of **recognition word sets**

(**"Vocabulary Expansion Processor"**) and **interactive operational**

patterns (examiner reads 'interactive operational patterns' as speech

commands, in the **"Speech Recognition Engine"**, **Fig. 1, step 16**) to

be used for voice recognition operational purposes (In **Fig. 1**, both the

"Speech Recognition Engine" and the **"Vocabulary Expansion**

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Processor” work with the speech recognition engine, steps 12, 16, and 22 and col. 5, lines 23-26);

an **output providing section** providing an output of **interactive operation patterns** correlated with the searched **recognition word set** (**Fig. 1, step 26, outputs word commands in the “speech recognition engine”/interactive operation patterns, and “expansion processor”/recognized word set, col. 7, lines 6-9, col. 5, lines 23-26, steps 16 and 22).**

a **new registration mode setting device** setting a **new registering mode** to allow a particular **recognition word set** to be newly registered in the **memory** for use in another **interactive operational pattern** (**new or additional words added to speech recognition system, col. 3, lines 44-50, Fig 1, step 1);**

an **input device** inputting various information to the **memory** (**input device means for putting new words into expansion section (step 20), inputted words are stored in memory via the expansion processor, col. 6, lines 48-50);**

Ittycheriah does not teach of a setting section to register new words.

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However, Bocchieri teaches

a **setting section** (In memory, the ASR, Automatic Speech Recognition, algorithm program section is used for speech, col. 5, line 51 and col. 2, lines 66-67 and Fig. 2, step 102) setting the newly registered **recognition word set** and **interactive operational pattern** ("Subword Model Database", which includes a recognized word set (Fig. 3 step 1032) and an interactive operational pattern (Fig. 3, step 1032 'As in') interacts with users enunciation of a word, col. 5, lines 51-56) on the basis of information inputted by the **input device** in the presence of the **new registering mode** (new or additional words added to speech recognition system, col. 3, lines 44-50, Fig 1, step 1);

Ittycheriah nor Bocchieri teach of using a **registration section** registering **resultant** by a setting section.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Ittycheriah's updatable speech recognition system with a setting section in order for the user to set a mode for new words to be added to the database by registering or preprocessing the new input data. One skilled in the art would have been motivated to design a setting mode to select new words for user flexibility.

Ittycheriah teaches a **search section** (searching is done by the "speech recognition engine", Fig. 1, step 16, which decodes new words and has a storage of existing words, col. 4, line 45 and col. 6, lines 50-54) searching a

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recognition word set (“Vocabulary Expansion Processor” works with
“Speech Recognition Engine”, Fig. 1, steps 16 and 22).

However, Ittycheriah does not teach of calculating the highest matching degree with the verbal input from memory.

However, Bocchieri teaches
the highest matching degree with the **verbal input**, from **memory** (in matching process, a “confidence recognition factor” calculates the match between phonetic input and stored vocabulary in the database, col. 6, lines 30-34).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Ittycheriah’s calculation inputted words with ambiguous existing words with Bocchieri’s highest match degree calculation in order to prevent excess memory storage of words that are already in memory. One skilled in the art would have been motivated to use a highest degree calculation in order to save space in memory.

As to claim 2, Ittycheriah teaches,
the **input device** includes the verbal input providing section (**verbal input section** is “input new word” section, Fig. 1, step 102).

However, neither Ittycheriah nor Bocchieri teach of using a setting section.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Ittycheriah’s input system with a setting section in order for the user to set a mode for new words to be added to the database by registering

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or preprocessing the new input data. One skilled in the art would have been motivated to design an input that interacts with a device setting mode so that user can conveniently input new data into the system.

As to claim 3, Bocchieri teach,

The input device includes a keyboard (**Fig. 1, lines 31-34**) allocate the **interactive operational pattern** (**"Subword Model Database", Fig. 2, steps 1020-1030**) to the verbal input which is inputted by the verbal input providing section (**"Vocabulary Lexicon Database" is compared with the "phonetic transcription strings", col. 6, lines 9-11 and Fig. 4, step 102005 and Fig. 5, step 102108**).

However, neither Ittycheriah nor Bocchieri teach

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Ittycheriah's input system such as a keyboard with a setting section in order for a user operability input new data. One skilled in the art would have been motivated to use a keyboard input that interacts with a device setting mode for flexibility.

As to claim 4,

Ittycheriah teaches

the **searching section** (**"speech recognition engine", Fig. 1, step 16**) serves to search for the registered recognition word set stored in the memory in the presence of the registering mode with higher priority than a previously

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registered recognition word set stored in memory (**“speech recognition engine” compares new words with existing stored words in memory, col. 4, line 45 and col. 6, lines 50-54).**

Neither Ittycheriah nor Bocchieri teach allowing the higher priority words to be readily accessible.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Ittycheriah's searching section to have ready a higher priority of words that are more frequently used. One skilled in the art would have been motivated to user a searching section that allows a higher priority of words to be readily accessible for faster retrieval of stored words in memory.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ittycheriah et al (6,185,530) in view of Bocchieri et al. (5,329,608), in further view of Theodore et al. (6,505,159).

As to claim 5,

Bocchieri teach of having a word database (**Vocabulary database for accessing words, col. 3, lines 23-24, and Fig. 2, step 1031);**

Neither Ittycheriah nor Bocchieri teach of a network communications system.

However, Theodore teaches of a network communication (**col. 2, line 63)** unit to allow communication with a base station (**col. 2, line 25, base station is handset which is linked to network communications, col. 2, lines 61-64).**

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At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Bochieri's word/vocabulary database linked with Theodore's based station in a network communication system in order to extract/access stored data remotely and share information (newly stored words) that has been previously updated. One skilled in the art would have been motivated to use a network system to share database information in a workstation setting.

6. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ittycheriah et al (6,185,530), in view of Bocchieri et al. (5,329,608) in further view of Van Kleeck et al. (5,890,122).

As to claim 6 and 7, Neither Ittycheriah nor Bocchieri teach of icon the word set.

However, Van Kleeck teach the setting section is able to set an icon to the recognition word set (**col. 7, line9-10**).

Van Kleeck does not teach of using an icon on newly registered words.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Bochieri's word/vocabulary updatable speech recognition system with Van Kleeck's icon word set in order to display and identify the new words that was stored in memory . One skilled in the art would have been motivated to use an icon for newly entered words to display for a design feature.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows:

Lewis et al. (6,334,102) teach adding new vocabulary words via speech recognition system.

Wu et al. (6,473,735) teach verifying the confidence of words spoken with the stored words in memory.

Yamada et al. (5,797,116) teach voice communication system that uses a category of unrecognized words, uses predictive category.

Janek et al. (6,253,176) teaches input verbal lexicon commands compared with text database of words.

Baker et al. (5,309,546) teaches icons for words that are inputted, text-to-speech system.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myriam Pierre whose telephone number is 703-605-1196. The examiner can normally be reached on Monday – Friday from 5:30 a.m. - 2:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on 703-306-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11-29-04


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